AMENDMENTS TO THE CLAIMS

The following claims replace all prior versions and listings of claims in the application:

1 (currently amended). A system for transmitting data between a first modem and a second modem across a packet network with reduced bandwidth and improved resistance to network packet loss, comprising:

a first processor for connection between said first modem and a first side of said packet network for:

providing a local interface to said first modem;

demodulating a full duplex data stream from said first modem into bits;

packetizing the bits into packets for transport over said packet network; and

remodulating ~~the~~ said full duplex data stream from a remote end, and

a second processor for connection between said second modem and a second side of said packet network for:

providing a local interface to said second modem;

demodulating the full duplex data stream from said second modem into bits;

packetizing the bits into packets for transport over said packet network; and

remodulating ~~the~~ said full duplex data stream from said first end side,

wherein said packets include both new and redundant data which may be read upon ~~the~~ said network packet loss.

2 (previously presented). The system of claim 1, further comprising:

means for establishing optimal modulation and rate parameters for communication between said first and second modems.

3 (original). The system of claim 2, wherein said means for establishing optimal modulation and rate parameters includes the exchange of signaling messages to determine the best commonly supported data rate.

4 (original). The system of claim 3, wherein said means for establishing optimal modulation and rate parameters further includes:

means for independent connection of said first and second modems if no commonly supported data rate is determined.

5 (currently amended). In a system wherein an originating modem terminal equipment connects to a digital network via an originating modem relay unit and wherein a destination modem terminal equipment connects to ~~the~~ said digital network via a destination modem relay unit, a method of providing modem communications

comprising:

~~the~~ said originating modem terminating equipment sending digital data to ~~the~~ said destination modem terminating equipment via ~~the~~ said originating modem relay unit and ~~the~~ said destination modem relay unit;

~~the~~ said originating modem relay unit sending ~~the~~ said digital data to ~~the~~ said destination modem relay unit; and

while ~~the~~ said destination modem relay unit is waiting for ~~the~~ said digital data from ~~the~~ said originating modem terminating equipment, ~~the~~ said destination modem relay unit maintaining communication with ~~the~~ said destination modem terminating equipment to prevent protocol timeouts of ~~the~~ said destination modem terminating equipment.

6. (previously presented). The system of claim 5, wherein each of said originating and said destination modem relay units include:

a modem driver connected to a modulated interface,

a modem network driver connected to said digital network, and

a modem relay protocol unit, connected between said modem driver and said modem network driver, tracks modem control and state machine functions and provides modem data.

7 (currently amended). In a system wherein an originating modem terminal

equipment connects to a digital network via an originating modem relay unit and wherein a destination modem terminating equipment connects to ~~the~~ said digital network via a destination modem relay unit, a method of receiving a modem communication from ~~the~~ said destination modem relay unit ~~comprises~~ comprising:

receiving digital data from the originating modem terminating equipment; and

while waiting for ~~the~~ said digital data from ~~the~~ said originating modem terminating equipment, maintaining communication with ~~the~~ said destination modem terminating equipment to prevent protocol timeouts of ~~the~~ said destination modem terminating equipment.

8 (currently amended). A method of receiving a modem communication at a destination modem terminal equipment from an originating modem terminating equipment via a digital network, wherein the destination modem terminating equipment connects to ~~the~~ said digital network via a destination modem relay unit, ~~the~~ said method comprising:

receiving, by ~~the~~ said destination modem relay unit, digital data from ~~the~~ said originating modem terminating equipment; and

while waiting for ~~the~~ said digital data from ~~the~~ said originating modem terminating equipment, maintaining communication with said destination modem terminating equipment to prevent protocol timeouts of ~~the~~ said destination modem terminating equipment.

9 (currently amended). The method of claim 7 wherein ~~the~~ said digital network comprises one of an unknown and unpredictable delay.

10 (currently amended). A method for transmitting data between a first modem and a second modem across a packet network with reduced bandwidth and improved resistance to network packet loss, comprising:

receiving a modem signal having a control portion and a data portion from said first modem;

separating said control portion and said data portion;

providing a control signal to said first modem at a local interface; and

packetizing said data portion into packets for transmission over said packet network to a second modem;, ~~and~~

~~providing redundant data in a packet of said data portion upon the network packet loss~~ wherein said packets include both new and redundant data which may be read upon said network packet loss.

11 (previously presented). The method of claim 10, further comprising:

establishing optimal modulation and rate parameters for communication between said first and second modems.

12 (previously presented). The method of claim 10, further including:

exchanging signaling messages to determine a best commonly supported data rate.

13 (currently amended). The method of claim 12, further including:

determining when no said commonly supported data rate is available; and

independently connecting said first and second modems if no said commonly supported data rate is determined.

14 (currently amended). The method of claim 10, wherein said providing both new and redundant data in a packet follows a first series of data packets in which at least one of said first series of data packets is lost across said packet network.

15 (currently amended). The method of claim 14, wherein:

said ~~said~~ providing both new and redundant data is delayed by a predetermined number of data packets following said first series of data packets. ????

16 (previously presented). The method of claim 15, wherein said data packets comprise digital modem data.

17 (currently amended). The method of claim 15, wherein said ~~delay~~ predetermined number of data packets is selected to accommodate expected packet loss and to

provide acceptable delay.